

It is claimed:

1. A computer-implemented speech recognition method for handling noise contained in a user input speech, comprising the steps of:

receiving from a user the user input speech that contains environmental noise, user vocalized noise, and useful sounds;

selecting a domain acoustic noise model from a plurality of candidate domain acoustic noise models that substantially matches acoustic profile of the environmental noise in the user input speech, each of said candidate domain acoustic noise models containing a noise acoustic profile specific to a pre-selected domain;

adjusting an environmental noise language model based upon the selected domain acoustic noise model for detecting the environmental noise within the user input speech;

adjusting a vocalized noise model based upon the selected domain acoustic noise model for detecting the vocalized noise within the user input speech;

adjusting a language model based upon the selected domain acoustic noise model for detecting the useful sounds within the user input speech; and

performing speech recognition upon the user input speech using the adjusted environmental noise language model, the adjusted vocalized noise model, and the adjusted language model.